

INFESTATION CONDITIONS - SEASON OF 1939.

LASSEN VOLCANIC NATIONAL PARK

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cc - Craighead
Forester, N.P.S.
Park Service P.O.
Superintendent

GENERAL STATEMENT OF CONDITIONS

In general there is evident a marked increase in activity on the part of the mountain pine beetle (Dendroctonus monticolae Hopk.) in sugar pine, the jeffrey pine beetle (D. jeffreyi Hopk.) in jeffrey pine, and the fir engraver beetle (Scolytus ventralis Lec.) in white and red fir. However, only the activities of the jeffrey pine beetle and the fir engraver beetle are seriously affecting the stands within the park boundaries this season.

No epidemic tendencies on the part of the western pine beetle (Dendroctonus brevicornis Lec.) could be discovered in the park. Though several small groups of lodgepole pine were found to be infested by the mountain pine beetle, few infestations that were seen or reported to the writer could be considered typical of an epidemic condition.

CONDITIONS IN SPECIAL AREAS

Manzanita Lake and Immigrant Pass

Control work, which was carried on last spring in the Manzanita Lake campground and in the stands south of the Loop Highway from Lost Creek to Chaos Jumbles, seems to have been effective. Current infestations are light. Four infested trees were found in the campground, and four additional trees were found in the blackjack stands in Immigrant Pass. These were all infested jeffrey pines containing jeffrey pine beetle broods which can be treated in the spring. A few infested white firs were also seen in this area.

Lost Creek and Devastated Area

Though there has been an increase in losses caused by the jeffrey pine beetle in this area, the infestation is not of outbreak proportions. Continued maintenance control along the highway and east and west of the Lost Creek CCC camp on the north side of the highway is advisable. It is estimated that about twenty-five infested trees occur in this area.

Loop Highway from Devastated Area to Summit

All along this road numerous dead red firs can be seen, which, for the most part, are infested by the fir engraver beetle. Treatment of these

trees before the broods leave them in the spring is advisable. However, destruction of broods of the engraver beetle is not considered a highly effective control measure, and control action is suggested chiefly on the principle that it is better to fall and treat the broods than merely to fall the snags later after the broods have left to attack other trees. The only reason why such control action might not be highly effective is that the fir engraver beetle population can remain at a relatively high level because of its habit of causing scattered spot or partial infestations in otherwise green trees. It is estimated that about one hundred and fifty infested firs occur along this strip of highway.

In the Summit Lake Campground the dying of red fir is causing a serious loss of cover. It seems advisable to more strictly supervise camping and automobile travel in this area in order to prevent unreasonable damage to the trees. Four infested lodgepole pines also were found in this area. These trees should be treated, although they do not represent vigorous attacks.

Dying of twigs and branches of red fir is very noticeable this season. No primary insect infestations were found to be concerned in this type of damage in a series of branches that were examined. However, on all twigs examined mistletoe infections and swellings occurred basal to the injury. It is probable that this infection is the cause of the damage.

Sulfur Works to Park South Boundary

Fir loss along this strip of highway is relatively heavy. It is estimated that thirty-five infested trees should be treated.

Badger Flat

Loss in the lodgepole pine stands in this area was, for the most part, light, and mountain pine beetle infestations were relatively inactive. One group of five infested trees was found to have died as a result of vigorous attacks. However, such groups and attacks did not seem to be of common occurrence. No control is considered necessary in this area at this time.

Butte Lake

Three trees in the campground contained broods of the western pine beetle at the time the examination was made. All three had been injured previously. To the north of the campground jeffrey pine beetle infestations were active both within and outside of the park boundary. Similar activity has been reported to be general in the Lassen area. It

is desirable that control action be taken to treat infested trees in the campground and to reduce the infestation in the nearby stands. About fifteen infested trees were seen along the road from Cinder Cone to the northern boundary of the park.

Juniper and Grassy Lake areas

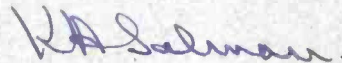
Lodgepole pine stands in this area were not inspected by the writer this season. Mr. Kenneth Gresham, park patrolman stationed at Grassy Lake, reported a slight increase in the infestation but that it could not be considered epidemic. Under those conditions no control seems advisable.

RECOMMENDATIONS

Maintenance control of forest insect infestations in scenic and intensively used areas is a part of the forest protection policy of the National Park Service. Under that policy a maintenance control program should be planned for continued application in Manzanita Lake, Summit Lake and Butte Lake campgrounds and in adjacent stands, the infestations of which may threaten the cover in the campgrounds. In addition, control of a maintenance type should be planned for areas bordering the Loop Highway. It is estimated that the control work in the spring of 1940 would involve the treatment of about 250 trees. This work should be done early in the spring and plans should be made accordingly.

It seems desirable that arrangements be made to have a representative of the Bureau of Entomology and Plant Quarantine on the ground during at least a part of the control program to furnish technical aid in the field work. The Bureau would benefit by securing a more exact knowledge of infestation tendencies and the Ranger Force of the Park would benefit from accumulated experience on the operation of control projects as well as on the entomological problems involved.

Respectfully submitted,



K. A. Salman

Berkeley, California
October 31, 1939